

**Table C.5-11.** Radioactivity of each waste type (curies per container).

	Class A grout <sup>a</sup>	HAW vitrified at INEEL <sup>b</sup>	Solidified HAW <sup>c</sup>	HAW vitrified at Hanford <sup>d</sup>	HIP HLW <sup>e</sup>	Direct cementitious waste <sup>f</sup>	Early Vitrified HAW <sup>g</sup>	Calcine and Cs IX resin <sup>h</sup>	LAW vitrified at Hanford <sup>d</sup>	Class C grout <sup>a</sup>	Vitrified RH-TRU <sup>i</sup>	CH-TRU <sup>j</sup>	RH-TRU <sup>k</sup>
Am-241	0.0052	12	2.6	13	1.6	0.51	0.77	2.5	0.14	5.4×10 <sup>-3</sup>	0.22	0.060	18
Am-243	8.1×10 <sup>-9</sup>	1.8×10 <sup>-5</sup>	3.9×10 <sup>-6</sup>	3.8×10 <sup>-5</sup>	4.6×10 <sup>-6</sup>	1.5×10 <sup>-6</sup>	2.2×10 <sup>-6</sup>	7.2×10 <sup>-6</sup>	4.1×10 <sup>-7</sup>	8.3×10 <sup>-9</sup>	8.7×10 <sup>-5</sup>	2.7×10 <sup>-5</sup>	2.4×10 <sup>-5</sup>
Ba-137m	0.29	1.8×10 <sup>-4</sup>	4.0×10 <sup>-5</sup>	-	1.6×10 <sup>3</sup>	510	770	2.5×10 <sup>3</sup>	-	440	150	3.6×10 <sup>-3</sup>	5.2×10 <sup>-5</sup>
Cd-113m	-	-	-	-	0.067	0.021	0.032	0.1	-	-	7.4×10 <sup>-3</sup>	-	-
Ce-144	3.7×10 <sup>-4</sup>	16	3.4	-	2.3	0.72	5.3×10 <sup>-18</sup>	1.7×10 <sup>-17</sup>	-	4.0×10 <sup>-4</sup>	2.5×10 <sup>-8</sup>	2.0×10 <sup>-4</sup>	21
Cm-242	1.3×10 <sup>-8</sup>	2.9×10 <sup>-5</sup>	6.3×10 <sup>-6</sup>	-	3.9×10 <sup>-6</sup>	1.2×10 <sup>-6</sup>	1.9×10 <sup>-6</sup>	6.1×10 <sup>-6</sup>	-	1.3×10 <sup>-8</sup>	5.0×10 <sup>-5</sup>	1.5×10 <sup>-4</sup>	3.9×10 <sup>-5</sup>
Cm-244	2.4×10 <sup>-8</sup>	5.4×10 <sup>-5</sup>	1.2×10 <sup>-5</sup>	6.5×10 <sup>-5</sup>	7.3×10 <sup>-6</sup>	2.3×10 <sup>-6</sup>	3.5×10 <sup>-6</sup>	1.1×10 <sup>-5</sup>	1.4×10 <sup>-7</sup>	2.5×10 <sup>-8</sup>	4.4×10 <sup>-3</sup>	2.7×10 <sup>-3</sup>	7.1×10 <sup>-5</sup>
Co-60	0.07	2.4×10 <sup>-5</sup>	5.3×10 <sup>-6</sup>	-	0.16	0.050	0.024	0.076	-	0.072	0.027	0.021	3.5×10 <sup>-9</sup>
Cs-134	0.0029	1.3×10 <sup>-6</sup>	2.8×10 <sup>-7</sup>	-	1.9	0.61	1.2×10 <sup>-3</sup>	3.9×10 <sup>-3</sup>	-	0.16	1.1×10 <sup>-3</sup>	5.6×10 <sup>-5</sup>	1.1×10 <sup>-9</sup>
Cs-135	4.1×10 <sup>-6</sup>	4.6×10 <sup>-9</sup>	9.9×10 <sup>-10</sup>	0.25	0.027	8.6×10 <sup>-3</sup>	0.013	0.043	2.1×10 <sup>-4</sup>	7.6×10 <sup>-3</sup>	3.7×10 <sup>-3</sup>	5.8×10 <sup>-8</sup>	1.1×10 <sup>-9</sup>
Cs-137	0.34	13,000	2,800	1.6×10 <sup>4</sup>	1.8×10 <sup>3</sup>	570	820	2.6×10 <sup>3</sup>	13	470	150	3.8×10 <sup>-3</sup>	5.5×10 <sup>-5</sup>
Eu-152	1.3×10 <sup>-4</sup>	0.35	0.077	-	0.048	0.015	0.023	0.075	-	1.7×10 <sup>-4</sup>	5.4×10 <sup>-3</sup>	2.7×10 <sup>-4</sup>	0.50
Eu-154	0.010	28	6.2	-	3.8	1.2	1.8	5.8	-	0.013	0.24	0.020	43
Eu-155	9.4×10 <sup>-5</sup>	0.82	0.18	-	0.17	0.054	0.014	0.044	-	9.6×10 <sup>-5</sup>	0.11	0.019	1.1
I-129	8.9×10 <sup>-5</sup>	0.020	0.0036	-	1.9×10 <sup>-3</sup>	5.9×10 <sup>-4</sup>	5.6×10 <sup>-4</sup>	1.8×10 <sup>-3</sup>	-	4.7×10 <sup>-4</sup>	0.034	2.3×10 <sup>-4</sup>	8.3×10 <sup>-3</sup>
Nb-93m	-	-	-	-	0.093	0.029	0.045	0.14	-	-	7.7×10 <sup>-3</sup>	-	-
Ni-63	0.0093	1.0×10 <sup>-4</sup>	2.2×10 <sup>-5</sup>	-	-	-	-	-	-	9.8×10 <sup>-3</sup>	0.12	5.7×10 <sup>-3</sup>	5.9×10 <sup>-11</sup>
Np-237	3.1×10 <sup>-14</sup>	0.030	0.054	0.01	2.5×10 <sup>-3</sup>	7.8×10 <sup>-4</sup>	7.4×10 <sup>-4</sup>	2.4×10 <sup>-3</sup>	1.6×10 <sup>-4</sup>	3.8×10 <sup>-14</sup>	0.012	6.9×10 <sup>-5</sup>	0.034
Pa-233	3.8×10 <sup>-15</sup>	0.010	0.0025	-	1.5×10 <sup>-3</sup>	4.8×10 <sup>-4</sup>	7.4×10 <sup>-4</sup>	2.4×10 <sup>-3</sup>	-	3.8×10 <sup>-14</sup>	0.012	-	0.034
Pd-107	-	-	-	-	7.6×10 <sup>-4</sup>	2.4×10 <sup>-4</sup>	3.7×10 <sup>-4</sup>	1.2×10 <sup>-3</sup>	-	-	6.7×10 <sup>-5</sup>	-	-
Pm-147	0.0017	3.7	-	-	0.51	0.16	0.25	0.79	-	1.7×10 <sup>-3</sup>	0.023	0.11	5.5
Pr-144	-	-	-	-	0.51	0.16	0.25	0.8	-	-	2.5×10 <sup>-8</sup>	9.8×10 <sup>-3</sup>	-
Pu-238	5.1×10 <sup>-10</sup>	100	22	110	14	4.3	6.5	0.21	0.85	5.7×10 <sup>-10</sup>	1.4	0.092	150
Pu-239	1.0×10 <sup>-11</sup>	2.4	0.52	2.3	0.31	0.097	0.13	0.41	0.017	1.1×10 <sup>-11</sup>	0.23	9.6×10 <sup>-3</sup>	3.5
Pu-240	7.9×10 <sup>-12</sup>	1.6	0.36	1.8	0.22	0.070	0.10	0.33	0.014	9.1×10 <sup>-12</sup>	0.044	3.2×10 <sup>-3</sup>	2.4
Pu-241	2.4×10 <sup>-10</sup>	50	10.7	56	6.6	2.1	3.0	9.7	0.13	2.7×10 <sup>-10</sup>	0.57	0.060	69
Pu-242	1.6×10 <sup>-14</sup>	0.0032	7.0×10 <sup>-4</sup>	-	4.3×10 <sup>-4</sup>	1.4×10 <sup>-4</sup>	2.1×10 <sup>-4</sup>	6.7×10 <sup>-4</sup>	-	1.8×10 <sup>-14</sup>	3.3×10 <sup>-5</sup>	1.8×10 <sup>-6</sup>	4.8×10 <sup>-3</sup>
Ru-106	0.22	0.14	0.031	4.3×10 <sup>-13</sup>	0.92	0.29	3.0×10 <sup>-14</sup>	9.8×10 <sup>-14</sup>	2.5×10 <sup>-15</sup>	0.23	5.0×10 <sup>-7</sup>	5.3×10 <sup>-4</sup>	0.19
Sb-125	0.050	1.9×10 <sup>-5</sup>	4.2×10 <sup>-6</sup>	-	0.20	0.062	7.5×10 <sup>-3</sup>	0.024	-	0.051	2.1×10 <sup>-3</sup>	8.2×10 <sup>-3</sup>	1.3×10 <sup>-9</sup>
Sb-126	-	-	-	-	2.5×10 <sup>-3</sup>	8.0×10 <sup>-4</sup>	1.2×10 <sup>-3</sup>	3.9×10 <sup>-3</sup>	-	-	2.4×10 <sup>-4</sup>	-	-
Se-79	-	-	-	-	0.021	6.5×10 <sup>-3</sup>	0.010	0.032	-	-	1.8×10 <sup>-3</sup>	-	-
Sm-151	0.52	250	55	320	36	11	17	0.56	0.40	0.53	1.3	0.059	350
Sn-121m	-	-	-	-	1.0×10 <sup>-3</sup>	3.3×10 <sup>-4</sup>	5.0×10 <sup>-4</sup>	1.6×10 <sup>-3</sup>	-	-	2.3×10 <sup>-4</sup>	-	-
Sn-126	-	-	-	-	0.018	5.8×10 <sup>-3</sup>	8.8×10 <sup>-3</sup>	0.028	-	-	1.7×10 <sup>-3</sup>	-	-
Sr-90	5.4×10 <sup>-5</sup>	1.4×10 <sup>4</sup>	3.1×10 <sup>3</sup>	1.7×10 <sup>4</sup>	1.9×10 <sup>3</sup>	600	920	2.9×10 <sup>3</sup>	34	520	160	3.3	1.2×10 <sup>-4</sup>
Tc-99	0.090	2.8	0.60	1.2	0.70	0.22	0.34	1.1	0.59	0.19	0.040	1.7×10 <sup>-3</sup>	0.41
Th-230	3.0×10 <sup>-5</sup>	3.4×10 <sup>-5</sup>	7.4×10 <sup>-6</sup>	1.1×10 <sup>-3</sup>	1.2×10 <sup>-4</sup>	3.8×10 <sup>-5</sup>	5.8×10 <sup>-5</sup>	1.9×10 <sup>-4</sup>	1.6×10 <sup>-6</sup>	3.2×10 <sup>-5</sup>	3.7×10 <sup>-6</sup>	1.8×10 <sup>-8</sup>	4.6×10 <sup>-5</sup>
Th-231	2.2×10 <sup>-5</sup>	2.5×10 <sup>-5</sup>	5.4×10 <sup>-6</sup>	-	8.9×10 <sup>-5</sup>	2.8×10 <sup>-5</sup>	4.3×10 <sup>-5</sup>	1.4×10 <sup>-4</sup>	-	2.3×10 <sup>-5</sup>	8.7×10 <sup>-5</sup>	3.1×10 <sup>-3</sup>	3.6×10 <sup>-5</sup>

**Table C.5-11.** (Continued).

	HAW vitrified Class A grout <sup>a</sup> at INEEL <sup>b</sup>	Solidified HAW <sup>c</sup>	HAW vitrified at Hanford <sup>d</sup>	HIP HLW <sup>e</sup>	Direct cementitious waste <sup>f</sup>	Early Vitrified HAW <sup>g</sup>	Calcine and Cs IX resin <sup>h</sup>	LAW vitrified at Hanford <sup>d</sup>	Class C grout <sup>a</sup>	Vitrified RH-TRU <sup>i</sup>	CH-TRU <sup>j</sup>	RH-TRU <sup>k</sup>
U-232	$6.3 \times 10^{-20}$	$5.9 \times 10^{-6}$	$1.3 \times 10^{-6}$	-	-	-	-	-	$1.2 \times 10^{-19}$	$7.7 \times 10^{-6}$	$3.6 \times 10^{-7}$	$8.5 \times 10^{-6}$
U-233	$1.2 \times 10^{-17}$	$9.4 \times 10^{-4}$	$2.0 \times 10^{-4}$	$1.8 \times 10^{-6}$	$9.3 \times 10^{-5}$	$2.9 \times 10^{-5}$	$1.0 \times 10^{-7}$	$3.3 \times 10^{-7}$	$1.1 \times 10^{-8}$	$1.3 \times 10^{-17}$	$1.0 \times 10^{-6}$	$2.8 \times 10^{-10}$
U-234	$1.4 \times 10^{-15}$	0.10	0.022	0.12	0.014	$4.4 \times 10^{-3}$	$6.7 \times 10^{-3}$	0.022	$7.4 \times 10^{-4}$	$2.1 \times 10^{-15}$	$3.4 \times 10^{-3}$	$1.6 \times 10^{-4}$
U-235	$1.0 \times 10^{-17}$	$7.6 \times 10^{-4}$	$1.6 \times 10^{-4}$	$7.7 \times 10^{-4}$	$9.9 \times 10^{-5}$	$3.1 \times 10^{-5}$	$4.3 \times 10^{-5}$	$1.4 \times 10^{-4}$	$4.7 \times 10^{-6}$	$1.5 \times 10^{-17}$	$8.7 \times 10^{-5}$	$4.1 \times 10^{-6}$
U-236	$2.4 \times 10^{-17}$	0.0017	$3.7 \times 10^{-4}$	-	$2.3 \times 10^{-4}$	$7.3 \times 10^{-5}$	$1.1 \times 10^{-4}$	$3.6 \times 10^{-4}$	-	$3.4 \times 10^{-17}$	$1.4 \times 10^{-4}$	$7.9 \times 10^{-6}$
U-237	$2.0 \times 10^{-17}$	$1.1 \times 10^{-3}$	$2.4 \times 10^{-4}$	-	$1.5 \times 10^{-4}$	$4.8 \times 10^{-5}$	$7.3 \times 10^{-5}$	$2.4 \times 10^{-4}$	-	$2.3 \times 10^{-17}$	$1.4 \times 10^{-5}$	$1.6 \times 10^{-3}$
U-238	$2.4 \times 10^{-18}$	$1.8 \times 10^{-4}$	$3.9 \times 10^{-5}$	$4.0 \times 10^{-5}$	$1.9 \times 10^{-5}$	$6.1 \times 10^{-6}$	$2.2 \times 10^{-6}$	$7.1 \times 10^{-6}$	$2.4 \times 10^{-7}$	$2.8 \times 10^{-18}$	$8.7 \times 10^{-5}$	$2.9 \times 10^{-6}$
Y-90	$5.1 \times 10^{-7}$	$1.4 \times 10^{-4}$	$3.0 \times 10^{-3}$	$1.7 \times 10^{-4}$	$1.9 \times 10^3$	600	920	$2.9 \times 10^{-3}$	34	510	0.016	2.1
Zr-93	-	-	-	-	0.11	0.034	0.051	0.17	-	-	$9.1 \times 10^{-3}$	-

- a. Source: Landman and Barnes (1998).
- b. Source: Landman (1998), Fluor Daniel (1997).
- c. Source: Quigley and Keller (1998), Landman (1998).
- d. Source: Jacobs (1998).
- e. Source: Barnes (1998a), Dafoe and Losinski (1998), Fluor Daniel (1997), Russell et al. (1998a,b).
- f. Source: Barnes (1998a), Fluor Daniel (1997), Russell et al. (1998a,b)
- g. Source: Barnes (1998a,b), Fewell (1999), Lee (1999).
- h. Source: Barnes (1998a,b), Lopez (1998).
- i. Source: Wenzel (1997).
- j. Source: Barnes (1998c).
- k. Source: Russell et al. (1998a).

Cs IX = cesium ion exchange; HAW = high-activity waste; HIP = Hot Isostatic Press; LAW = low-activity waste; TRU = transuranic waste; CH = contact-handled; RH = remote-handled.

**Table C.5-12.** Moderate severity truck and rail accident critical receptor consequences for all waste forms under neutral and stable atmospheric conditions.

Waste form shipped	Truck					Rail				
	Source <sup>a</sup> (curies)	TEDE <sup>b</sup> (rem) Neutral	LCF probability	TEDE <sup>b</sup> (rem) Stable	LCF probability	Source <sup>a</sup> (curies)	TEDE <sup>b</sup> (rem) Neutral	LCF probability	TEDE <sup>b</sup> (rem) Stable	LCF probability
Calcine	0.55	0.085	$4.3 \times 10^{-5}$	$2.1 \times 10^{-3}$	$1.1 \times 10^{-6}$	1.1	0.17	$8.5 \times 10^{-5}$	$4.1 \times 10^{-3}$	$2.1 \times 10^{-6}$
Cementitious HLW	0.058	$8.8 \times 10^{-3}$	$4.4 \times 10^{-6}$	$2.1 \times 10^{-4}$	$1.1 \times 10^{-7}$	0.11	0.018	$9.0 \times 10^{-6}$	$4.3 \times 10^{-4}$	$2.2 \times 10^{-7}$
CH-TRU	$3.3 \times 10^{-7}$	$7.7 \times 10^{-6}$	$3.9 \times 10^{-9}$	$2.6 \times 10^{-8}$	$1.3 \times 10^{-11}$	$6.7 \times 10^{-7}$	$8.2 \times 10^{-6}$	$4.1 \times 10^{-9}$	$3.8 \times 10^{-8}$	$1.9 \times 10^{-11}$
Class A Grout	$7.9 \times 10^{-5}$	$2.4 \times 10^{-5}$	$1.2 \times 10^{-8}$	$3.8 \times 10^{-7}$	$1.9 \times 10^{-10}$	$2.0 \times 10^{-4}$	$4.6 \times 10^{-5}$	$2.3 \times 10^{-8}$	$9.1 \times 10^{-7}$	$4.6 \times 10^{-10}$
Class C Grout	0.048	$2.3 \times 10^{-3}$	$1.2 \times 10^{-6}$	$5.4 \times 10^{-5}$	$2.7 \times 10^{-8}$	0.15	$6.7 \times 10^{-3}$	$3.4 \times 10^{-6}$	$1.6 \times 10^{-4}$	$8.0 \times 10^{-8}$
CsIX Resin	1.9	$9.8 \times 10^{-3}$	$4.9 \times 10^{-6}$	$2.4 \times 10^{-4}$	$1.2 \times 10^{-7}$	1.9	$9.7 \times 10^{-3}$	$4.9 \times 10^{-6}$	$2.3 \times 10^{-4}$	$1.2 \times 10^{-7}$
HIP HLW	$5.1 \times 10^{-5}$	$1.6 \times 10^{-5}$	$8.0 \times 10^{-9}$	$2.1 \times 10^{-7}$	$1.1 \times 10^{-10}$	$1.0 \times 10^{-4}$	$2.4 \times 10^{-5}$	$1.2 \times 10^{-8}$	$4.0 \times 10^{-7}$	$2.0 \times 10^{-10}$
RH-TRU	$4.0 \times 10^{-6}$	$6.1 \times 10^{-5}$	$3.1 \times 10^{-8}$	$1.3 \times 10^{-6}$	$6.5 \times 10^{-10}$	$8.0 \times 10^{-6}$	$1.2 \times 10^{-4}$	$6.0 \times 10^{-8}$	$2.6 \times 10^{-6}$	$1.3 \times 10^{-9}$
Solidified HAW	0.89	0.18	$9.0 \times 10^{-5}$	$4.3 \times 10^{-3}$	$2.2 \times 10^{-6}$	1.8	0.36	$1.8 \times 10^{-4}$	$8.7 \times 10^{-3}$	$4.4 \times 10^{-6}$
Vitrified HAW	$3.5 \times 10^{-4}$	$7.4 \times 10^{-5}$	$3.7 \times 10^{-8}$	$1.6 \times 10^{-6}$	$8.0 \times 10^{-10}$	$7.0 \times 10^{-4}$	$1.4 \times 10^{-4}$	$7.0 \times 10^{-8}$	$3.2 \times 10^{-6}$	$1.6 \times 10^{-9}$
Vitrified HAW Hanford	$2.4 \times 10^{-5}$	$1.3 \times 10^{-5}$	$6.5 \times 10^{-9}$	$1.1 \times 10^{-7}$	$5.5 \times 10^{-11}$	$6.1 \times 10^{-5}$	$1.8 \times 10^{-5}$	$9.0 \times 10^{-9}$	$2.4 \times 10^{-7}$	$1.2 \times 10^{-10}$
Vitrified HAW INEEL	$2.9 \times 10^{-4}$	$5.8 \times 10^{-5}$	$2.9 \times 10^{-8}$	$1.4 \times 10^{-6}$	$7.0 \times 10^{-10}$	$5.8 \times 10^{-4}$	$1.2 \times 10^{-4}$	$6.0 \times 10^{-8}$	$2.8 \times 10^{-6}$	$1.4 \times 10^{-9}$
Vitrified LAW	$1.8 \times 10^{-6}$	$1.1 \times 10^{-5}$	$5.5 \times 10^{-9}$	$4.8 \times 10^{-8}$	$2.4 \times 10^{-11}$	$3.0 \times 10^{-6}$	$1.2 \times 10^{-5}$	$6.0 \times 10^{-9}$	$6.7 \times 10^{-8}$	$3.4 \times 10^{-11}$
Vitrified RH-TRU	$4.4 \times 10^{-6}$	$8.3 \times 10^{-6}$	$4.2 \times 10^{-9}$	$3.5 \times 10^{-8}$	$1.8 \times 10^{-11}$	$8.7 \times 10^{-6}$	$9.1 \times 10^{-6}$	$4.6 \times 10^{-9}$	$5.6 \times 10^{-8}$	$2.8 \times 10^{-11}$

a. Amount of radioactive material dispersed during the accident.

b. Total effective dose equivalent committed to an adult located 0.1 (neutral) and 0.6 (stable) kilometers downwind from the accident site for a two-hour exposure period.

LCF = Latent cancer fatality.

**Table C.5-13.** Extreme severity truck and rail accident critical receptor consequences for all waste forms under neutral and stable atmospheric conditions.

Waste form shipped	Truck					Rail				
	Source <sup>a</sup> (curies)	TEDE <sup>b</sup> (rem) neutral	LCF probability	TEDE <sup>b</sup> (rem) stable	LCF probability	Source <sup>a</sup> (curies)	TEDE <sup>b</sup> (rem) neutral	LCF probability	TEDE <sup>b</sup> (rem) stable	LCF probability
Calcine	55	8.5	$4.3 \times 10^{-3}$	0.21	$1.1 \times 10^{-4}$	110	17	$8.5 \times 10^{-3}$	0.41	$2.1 \times 10^{-4}$
Cementitious HLW	5.8	0.88	$4.4 \times 10^{-4}$	0.021	$1.1 \times 10^{-5}$	11	1.8	$9.0 \times 10^{-4}$	0.043	$2.2 \times 10^{-5}$
CH-TRU	$8.3 \times 10^{-3}$	0.013	$6.5 \times 10^{-6}$	$3.1 \times 10^{-4}$	$1.6 \times 10^{-7}$	0.017	0.026	$1.3 \times 10^{-5}$	$6.2 \times 10^{-4}$	$3.1 \times 10^{-7}$
Class A Grout	$7.9 \times 10^{-3}$	$1.5 \times 10^{-3}$	$7.5 \times 10^{-7}$	$3.7 \times 10^{-5}$	$1.9 \times 10^{-8}$	0.020	$3.8 \times 10^{-3}$	$1.9 \times 10^{-6}$	$9.0 \times 10^{-5}$	$4.5 \times 10^{-8}$
Class C Grout	4.8	0.23	$1.2 \times 10^{-4}$	$5.4 \times 10^{-3}$	$2.7 \times 10^{-6}$	15	0.67	$3.4 \times 10^{-4}$	0.016	$8.0 \times 10^{-6}$
CsIX Resin	190	0.98	$4.9 \times 10^{-4}$	0.024	$1.2 \times 10^{-5}$	380	1.9	$9.5 \times 10^{-4}$	0.047	$2.4 \times 10^{-5}$
HIP HLW	0.029	$4.5 \times 10^{-3}$	$2.3 \times 10^{-6}$	$1.1 \times 10^{-4}$	$5.5 \times 10^{-8}$	0.058	$9.0 \times 10^{-3}$	$4.5 \times 10^{-6}$	$2.2 \times 10^{-4}$	$1.1 \times 10^{-7}$
RH-TRU	0.13	1.8	$9.0 \times 10^{-4}$	0.043	$2.2 \times 10^{-5}$	0.27	3.6	$1.8 \times 10^{-3}$	0.086	$4.3 \times 10^{-5}$
Solidified HAW	89	1.8	$9.0 \times 10^{-3}$	0.43	$2.2 \times 10^{-4}$	180	3.6	$1.8 \times 10^{-2}$	0.87	$4.4 \times 10^{-4}$
Vitrified HAW	0.20	0.037	$1.9 \times 10^{-5}$	$8.9 \times 10^{-4}$	$4.5 \times 10^{-7}$	0.40	0.075	$3.8 \times 10^{-5}$	$1.8 \times 10^{-3}$	$9.0 \times 10^{-7}$
Vitrified HAW Hanford	0.014	$2.1 \times 10^{-3}$	$1.1 \times 10^{-6}$	$5.1 \times 10^{-5}$	$2.6 \times 10^{-8}$	0.035	$5.2 \times 10^{-3}$	$2.6 \times 10^{-6}$	$1.3 \times 10^{-4}$	$6.5 \times 10^{-8}$
Vitrified HAW INEEL	0.17	0.033	$1.7 \times 10^{-5}$	$7.9 \times 10^{-4}$	$4.0 \times 10^{-7}$	0.33	0.066	$3.3 \times 10^{-5}$	$1.6 \times 10^{-3}$	$8.0 \times 10^{-7}$
Vitrified LAW	$1.0 \times 10^{-3}$	$7.0 \times 10^{-4}$	$3.5 \times 10^{-7}$	$1.6 \times 10^{-5}$	$8.0 \times 10^{-9}$	$1.7 \times 10^{-3}$	$1.2 \times 10^{-3}$	$6.0 \times 10^{-7}$	$2.7 \times 10^{-5}$	$1.4 \times 10^{-8}$
Vitrified RH-TRU	$2.5 \times 10^{-3}$	$5.1 \times 10^{-4}$	$2.6 \times 10^{-7}$	$1.2 \times 10^{-5}$	$6.0 \times 10^{-9}$	$5.0 \times 10^{-3}$	$1.0 \times 10^{-3}$	$5.0 \times 10^{-7}$	$2.4 \times 10^{-5}$	$1.2 \times 10^{-8}$

a. Amount of radioactive material dispersed during the accident.

b. Total effective dose equivalent committed to an adult located 0.1 (neutral) and 0.6 (stable) kilometers downwind from the accident site for a two-hour exposure period.

LCF = Latent cancer fatality.